WHAT IS CLAIMED IS:

1. An arithmetic performance attribution method for determining portfolio performance, relative to a benchmark, over multiple time periods t, where t varies from 1 to T, comprising the steps of:

determining coefficients $(A+\alpha_t)$, where the values α_t are defined as

$$\alpha_t = \left[\frac{R - \overline{R} - A\sum_{k=1}^{T}(R_k - \overline{R}_k)}{\sum_{k=1}^{T}(R_k - \overline{R}_k)^2}\right](R_t - \overline{R}_t),$$

where R_t is a portfolio return for period t, $\overline{R}_t$ is a benchmark return for period t, R is determined by

$$R = [\prod_{t=1}^{T}(1+R_t)] - 1,$$

and $\overline{R}$ is determined by

$$\overline{R} = [\prod_{t=1}^{T}(1+\overline{R}_t)] - 1;$$

and determining the portfolio performance as

$$R - \overline{R} = \sum_{t=1}^{T}\sum_{i=1}^{N}(A+\alpha_t)(I_{it}^{A} + S_{it}^{A}),$$

where I_{it}^{A} is an issue selection for sector i and period t, and S_{it}^{A} is a sector selection for sector i and period t.

2. The method of claim 1, wherein A is

$$A = \frac{1}{T}\left[\frac{(R-\overline{R})}{(1+R)^{1/T} - (1+\overline{R})^{1/T}}\right], \text{ where } R \neq \overline{R},$$

or for the special case $R = \overline{R}$:

$$A = (1+R)^{(T-1)/T}.$$

3. The method of claim 1, wherein A = 1.

~~4. A geometric performance attribution method for determining portfolio performance, relative to a benchmark, over multiple time periods t, where t varies from 1 to T, comprising the steps of:~~

determining attribution effects for issue selection $(1 + I_{it}^{G,Vestek})$ given by

$$1 + I_{it}^{G,Vestek} = \left(\frac{1 + w_{it} r_{it}}{1 + w_{it} \bar{r}_{it}}\right) \Gamma_t$$

and determining attribution effects for sector selection $(1 + S_{it}^{G,Vestek})$ given by

$$1 + S_{it}^{G,Vestek} = \left(\frac{1 + w_{it} \bar{r}_{it}}{1 + \bar{w}_{it} \bar{r}_{it}}\right)\left(\frac{1 + \bar{w}_{it} \bar{R}_t}{1 + w_{it} \bar{R}_t}\right) \Gamma_t ,$$

where the values of Γ_t are

$$\Gamma_t = \left[\left(\frac{1 + R_t}{1 + \bar{R}_t}\right) \prod_{j=1}^{N} \frac{(1 + \bar{w}_{jt} \bar{r}_{jt})(1 + w_{jt} \bar{R}_t)}{(1 + w_{jt} r_{jt})(1 + \bar{w}_{jt} \bar{R}_t)}\right]^{\frac{1}{2N}},$$

where r_{jt} is a portfolio return for sector j for period t, $\bar{r}_{jt}$ is a benchmark return for sector j for period t, w_{jt} is a weight for r_{jt}, $\bar{w}_{jt}$ is a weight for $\bar{r}_{jt}$, R is determined by

$$R = [\prod_{t=1}^{T} (1 + R_t)] - 1$$

and $\bar{R}$ is determined by

$$\bar{R} = [\prod_{t=1}^{T} (1 + \bar{R}_t)] - 1 ;$$

and determining the portfolio performance as

$$\frac{1 + R}{1 + \bar{R}} = \prod_{t=1}^{T} \prod_{i=1}^{N} (1 + I_{it}^{G,Vestek})(1 + S_{it}^{G,Vestek}) .$$

[91] 5. A computer system, comprising:

a processor programmed to perform an arithmetic performance attribution computation to determine portfolio performance, relative to a benchmark, over multiple time periods t, where t varies from 1 to T, by determining coefficients $(A + \alpha_t)$, where the values α_t are defined as

$$\alpha_t = \left[\frac{R - \bar{R} - A\sum_{k=1}^{T} (R_k - \bar{R}_k)}{\sum_{k=1}^{T} (R_k - \bar{R}_k)^2}\right](R_t - \bar{R}_t),$$

where R_t is a portfolio return for period t, $\bar{R}_t$ is a benchmark return for period t, R is determined by

$$R = [\prod_{t=1}^{T}(1+R_t)]-1,$$

and $\overline{R}$ is determined by

$$\overline{R} = [\prod_{t=1}^{T}(1+\overline{R}_t)]-1;$$

and determining the portfolio relative performance as

$$R - \overline{R} = \sum_{t=1}^{T}\sum_{i=1}^{N}(A+\alpha_t)(I_{it}^{A} + S_{it}^{A}) ,$$

where I_{it}^{A} is an issue selection for sector i and period t, and S_{it}^{A} is a sector selection for sector i and period t; and

a display device coupled to the processor for displaying a result of the arithmetic performance attribution computation.

Sub B2 6. A computer system, comprising:

a processor programmed to perform a geometric performance attribution computation to determine portfolio performance, relative to a benchmark, over multiple time periods t, where t varies from 1 to T, by determining attribution effects for issue selection $(1 + I_{it}^{G,Vestek})$ given by

$$1 + I_{it}^{G,Vestek} = \left(\frac{1+w_{it}r_{it}}{1+w_{it}\overline{r}_{it}}\right)\Gamma_t$$

and determining attribution effects for sector selection $(1 + S_{it}^{G,Vestek})$ given by

$$1 + S_{it}^{G,Vestek} = \left(\frac{1+\overline{w}_{it}\overline{r}_{it}}{1+\overline{w}_{it}\overline{r}_{it}}\right)\left(\frac{1+\overline{w}_{it}\overline{R}_t}{1+w_{it}\overline{R}_t}\right)\Gamma_t ,$$

where the values of Γ_t are,

$$\Gamma_t = \left[\left(\frac{1+R_t}{1+\overline{R}_t}\right)\prod_{j=1}^{N}\frac{(1+\overline{w}_{jt}\overline{r}_{jt})(1+w_{jt}\overline{R}_t)}{(1+w_{jt}r_{jt})(1+\overline{w}_{jt}\overline{R}_t)}\right]^{\frac{1}{2N}},$$

where r_{jt} is a portfolio return for sector j for period t, $\overline{r}_{jt}$ is a benchmark return for sector j for period t, w_{jt} is a weight for r_{jt}, $\overline{w}_{jt}$ is a weight for $\overline{r}_{jt}$, R is determined by

$$R = [\prod_{t=1}^{T}(1+R_t)]-1$$

and $\overline{R}$ is determined by

$$\overline{R} = [\prod_{t=1}^{T}(1+\overline{R}_t)]-1;$$

and determining the portfolio performance as

$$\frac{1+R}{1+\overline{R}} = \prod_{t=1}^{T}\prod_{i=1}^{N}(1+I_{it}^{G,Vestek})(1+S_{it}^{G,Vestek});$$

and

a display device coupled to the processor for displaying a result of the geometric performance attribution computation.

33) 7. A computer readable medium which stores code for programming a processor to perform an arithmetic performance attribution computation to determine portfolio performance, relative to a benchmark, over multiple time periods t, where t varies from 1 to T, by determining coefficients $(A+\alpha_t)$, where the values α_t are defined as

$$\alpha_t = \left[\frac{R-\overline{R}-A\sum_{k=1}^{T}(R_k-\overline{R}_k)}{\sum_{k=1}^{T}(R_k-\overline{R}_k)^2}\right](R_t-\overline{R}_t),$$

where R_t is a portfolio return for period t, $\overline{R}_t$ is a benchmark return for period t, R is determined by

$$R = [\prod_{t=1}^{T}(1+R_t)]-1,$$

and $\overline{R}$ is determined by

$$\overline{R} = [\prod_{t=1}^{T}(1+\overline{R}_t)]-1;$$

and determining the portfolio relative performance as

$$R-\overline{R} = \sum_{t=1}^{T}\sum_{i=1}^{N}(A+\alpha_t)(I_{it}^{A}+S_{it}^{A}),$$

where I_{it}^{A} is an issue selection for sector i and period t, and S_{it}^{A} is a sector selection for sector i and period t.

8. A computer readable medium which stores code for programming a processor to perform a geometric performance attribution computation to determine portfolio performance, relative to a benchmark, over multiple time periods t, where t varies from 1 to T, by determining attribution effects for issue selection $(1 + I_{it}^{G,Vestek})$ given by

$$1 + I_{it}^{G,Vestek} = \left(\frac{1 + w_{it} r_{it}}{1 + w_{it} \bar{r}_{it}}\right) \Gamma_t$$

and determining attribution effects for sector selection $(1 + S_{it}^{G,Vestek})$ given by

$$1 + S_{it}^{G,Vestek} = \left(\frac{1 + w_{it} \bar{r}_{it}}{1 + \bar{w}_{it} \bar{r}_{it}}\right)\left(\frac{1 + \bar{w}_{it} \bar{R}_t}{1 + w_{it} \bar{R}_t}\right) \Gamma_t ,$$

where the values of Γ_t are,

$$\Gamma_t = \left[\left(\frac{1 + R_t}{1 + \bar{R}_t}\right) \prod_{j=1}^{N} \frac{(1 + \bar{w}_{jt} \bar{r}_{jt})(1 + w_{jt} \bar{R}_t)}{(1 + w_{jt} r_{jt})(1 + \bar{w}_{jt} \bar{R}_t)}\right]^{\frac{1}{2N}},$$

where r_{jt} is a portfolio return for sector j for period t, $\bar{r}_{jt}$ is a benchmark return for sector j for period t, w_{jt} is a weight for r_{jt}, $\bar{w}_{jt}$ is a weight for $\bar{r}_{jt}$, R is determined by

$$R = [\prod_{t=1}^{T} (1 + R_t)] - 1$$

and $\bar{R}$ is determined by

$$\bar{R} = [\prod_{t=1}^{T} (1 + \bar{R}_t)] - 1 ;$$

and determining the portfolio performance as

$$\frac{1 + R}{1 + \bar{R}} = \prod_{t=1}^{T} \prod_{i=1}^{N} (1 + I_{it}^{G,Vestek})(1 + S_{it}^{G,Vestek}).$$